

REMARKS

Claims 1-4, 6, 9, 14-17, 19-25 and 28 are amended herein and new claims 28-36 are added. Claims 5, 7-8, 12-13, 18 and 26-27 are canceled. Support for the amendments is found, for example, in the original claims and in the specification on pages 13 and 17-20. No new matter is presented.

Accordingly, upon entry of the Amendment, claims 1-4, 6, 9-11, 14-17, 19-25 and 28-36 will be all of the claims pending in the application.

I. Response to Claim Rejections under 35 U.S.C. § 102

Claims 1 and 10-11 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Okumura (US '848).

Claims 1, 10 and 12 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Austin (US '552).

Claims 1 and 12 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Austin (US '125).

Claims 1, 10 and 12 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Austin (US '091).

Claim 1 is amended herein by incorporating the subject matter of claim 13, which is not included in the rejections. That is, none of the cited references teaches or suggests the anti-reflection film of the present invention having a six layer structure as recited in amended claim 1. Thus, the presently claimed invention is not anticipated by any of the cited references.

Claim 12 is canceled and claims 10-11 depend on claim 1 and are distinguished over the cited references for at least the same reasons.

Accordingly, Applicants respectfully request withdrawal of the §102 rejections.

II. Response to Claim Rejections under 35 U.S.C. § 103

A. Claims 2 to 5 and 16 to 20

Claims 2-5, 16-17 and 19-20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Austin (US '091) in view of Chang (US '833).

Claim 18 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Austin (US '091) in view of Chang (US '833) and further in view of Baba (US '963).

Applicants respectfully traverse the rejections and submit that the cited references, taken alone or in combination, do not teach or suggest the presently claimed invention.

Independent claim 2 is directed to a self-light emitting display medium and is amended by incorporating some of the subject matter from claim 16. Independent claim 3 is directed to a liquid crystal display medium applicable to a transmission liquid crystal display and a translucent liquid crystal display, using three band fluorescent lamps as a backlight source and having emission spectrum maxima at the three primary colors and is amended by incorporating some of the subject matter from claims 16, 17 and 18. Independent claim 4 is amended by incorporating the subject matter of claim 5 and is directed to a light reflective display medium.

The primary reference, Austin '091, discloses a liquid crystal display device using a transparent electrode comprising a transparent electrically-conductive coating with antireflection function, having reflectance minima in the three primary colors.

However, Fig. 7 [Figs. 7A and 7B] referred to by the Examiner is directed to a rather small display such as the display of a watch or calculator. The portion of the disclosure relied on by the Examiner merely discloses that the electrode 50 formed from a single layer 52 of a conductive transparent material, which is a layer of ITO, and the etched area 60 in which the conductive transparent layer 52 is etched and which comprises the barrier layer 54, are immersed in the liquid crystal material 56. Moreover, Figs. 10, 13, 16 and 18 illustrate multilayer anti-reflection coatings including layers 74, 88, 106, and 124 of an electrically-conductive transparent metal oxide material such as ITO that serves as a transparent electrode. These layers are immersed in the liquid crystal material 56 and serve as transparent electrodes similar to layer 28 of an electrically-conductive metal oxide material in the multilayer transparent anti-reflection coating illustrated in Fig. 1.

Thus, the primary reference, Austin '091, does not disclose applying an anti-reflection film on a front surface of the display screen of a self-light emitting display device such as a CRT display device (monitor) or a liquid crystal display device (display monitor) as in the present invention. In addition, Austin '091 fails to disclose a light source having emission spectrum maxima at the three primary colors, in particular, the three-band fluorescent lamps, as the Examiner concedes.

Thus, the Examiner's allegation that Austin '091 discloses all the features of claim 4 (and claims 2 to 5 directed to a display medium) including the feature of the anti-reflection film applied on the display screen of the LCD display (Fig. 7) is improper.

Turning to Chang '833, the Examiner cites this reference to make up for the deficiency in Austin '091, which the Examiner concedes fails to disclose that the light source of the LCD

display device having emission spectrum maxima at the three primary colors. Chang '833 discloses a semi-transmissive color liquid crystal display, having a white backlight source composed of several narrowband monochromatic light sources such as R-LED, G-LED, and B-LED, and having emission spectrum maxima at the three primary colors; and wherein the white backlight source is used at a dark place as a light source and the ambient light is used at a bright place.

While Chang '833 discloses a white backlight source composed of several narrowband monochromatic light sources such as R-LED, G-LED and B-LED, Chang '833 does not disclose three-band fluorescent lamps having emission spectrum maxima at the three primary colors as the light source. Further, similar to Austin '091, Chang '833 is silent about applying an anti-reflection film on a front surface of the display screen of the self-light emitting display device such as a CRT display device or a liquid crystal display device. Thus, Austin '091 and Chang '833 do not teach or suggest all elements of the present invention and, even if combined, the present invention would not have been achieved.

Turning to Baba '963, this reference discloses various embodiments of a field-sequential (time-divisional) color display unit and display method. Baba '963 describes at column 18, lines 17 to 29, light sources capable of controlling the three-primary colors independently such as LEDs for emitting each of the three-primary colors, fluorescent lamps similar thereto, EL elements and the like. As a display unit, the reference describes a liquid crystal display, CRT display, PDP display and the like, and a color filter may be provided on the display surface.

However, Baba '963 also fails to disclose applying the anti-reflection film on a front surface of the display screen of the display device, or the three-band fluorescent lamps. Thus,

Baba '963 does not remedy the deficiencies of Austin '091 and Chang '833 and even if these references were combined as suggested by the Examiner, the present invention would not have been achieved.

As described in detail above, none of the cited references discloses the feature of applying the anti-reflection film on a front surface of the display screen of the self-light emitting display device. Also, Austin '091 and Chang '833 fail to disclose the self-light emitting display device such as a CRT display device and fail to disclose the three-band fluorescent lamps having emission spectrum maxima at three-primary colors. Thus, the invention as recited in present claims 2-5 and 16-20 is not rendered obvious by the cited references.

B. Claims 6, 8 to 9 and 21 to 28

Claims 6, 8-9 and 21-28 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Austin (US '091) in view of Furugori (US '068).

Applicants respectfully traverse the rejection.

As stated above, Austin '091 discloses a liquid crystal display using a transparent electrode comprising a transparent electrically-conductive multilayer coating having antireflection function, having reflectance minima in the three primary colors.

However, Austin '091 merely discloses a liquid crystal display device and fails to disclose an organic EL display device of the self-light emitting type. Further, there is no description of using an organic EL device as a light source in the liquid crystal display nor, additionally, applying an anti-reflection film discussed above on a front surface of a display screen (monitor) of an organic EL display device or a liquid crystal display device.

Furugori '068 discloses an organic EL device that emits the respective R, G, and B lights and an image display apparatus using the organic EL device.

However, at column 2, lines 21 to 41, referring to Fig. 2 of JP 2000-315582A, Furugori '068 discloses that it is not preferable to provide an anti-reflection layer on the electrode of the organic EL device itself. Then, at column 2, lines 42 to 63, referring to USP 5,986,401, Eurogori '068 discloses that it is not preferable to provide an anti-reflection layer outside the organic EL device. More precisely, the organic EL display apparatus of Furugori '068 preferably does not comprise a transparent electrode such as the transparent electrically-conductive multilayer coating having anti-reflection function taught by Austin '091 or preferably does not have an anti-reflection film applied on the monitor display screen surface of an organic EL device as in the present invention. Instead, a light absorption layer formed of an electrical insulating substance is provided on the monitor display screen surface of an organic EL device in Furugori '068.

Therefore, there is no motivation for one of ordinary skill in the art to combine Austin '091 and Furugori '068 with a reasonable expectation of success. Also, no one skilled in the art would have arrived at the idea of applying the anti-reflection film disclosed in Austin '091 on a monitor display surface of the organic EL device disclosed in Furugori '068 based on the teachings of these references. Even if they were combined, the present invention would not have been achieved since neither reference teaches or suggests all elements of the present claims. Thus, the present invention is not obvious.

Accordingly, applicants respectfully request withdrawal of the §103 rejections.

III. Allowable Subject Matter

Claims 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the elements of the base claim and any intervening claims.

Claim 13 is canceled herein thereby rendering the objection as to this claim moot.

Claims 14 and 15 are rewritten in independent form, thereby obviating the objection as to these claims. Accordingly, Applicants respectfully request withdrawal of the objection.

IV. New Claims

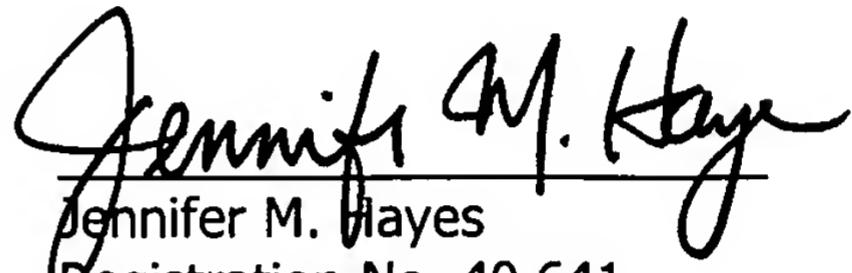
New claims 28-36 are dependent claims and are distinguished over the art for at least the same reason as the claims from which they depend, respectively.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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